Coffee-Filter Chromatography

See how colors in markers separate to make new colors!

Kit contains:

- plastic cup
- 4 coffee filters
- thin dowel
- small clothespin

You will need: markers (black marker is best!) and water.

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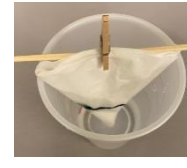
INSTRUCTIONS

(1) Fill the cup with water to the red line.

(2) Use a marker to draw a circle on the coffee filter around the middle circle part. Black marker works best. (**Note:** Marker may bleed through to the table below. Put a piece of paper under if it's a concern).

(3) Fold the coffee filter in half, then in half again, then in half again.

(4) Use the clothespin to attach the wide part of the folded coffee filter to the dowel. Suspend over the cup as shown. The point of the coffee filter should be just barely in the water.

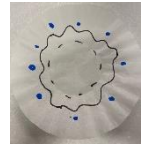


(5) What do you think will happen? Patiently observe what happens to the marker as the water moves up the coffee filter. When you're done, open it up for some amazing patterns!

TRY THIS!

You have several coffee filters, so you can perform the experiment several times. A few ideas to try:

- Try different color markers.
- If you have different types/brands of markers, test if some work better.
- Try making two lines with different colors and see how they blend.
- Draw a wavy line or a dotted line or your own creation and see what happens.



WHAT'S GOING ON?

Chromatography deals with separating mixtures into parts. Your marker's colors separate as the water moves up the coffee filter because the marker's ink is made of several different dyes and the different dyes separate at different speeds.

Source: https://www.adabofgluewilldo.com/kid-made-chromatography/

BOOKS TO LEARN MORE ABOUT COLORS & CHROMATOGRAPHY

Mix it Up by Herve Tullet

Dog's Colorful Day by Emma Dodd

Colors by Shelley Rotner

Green Is a Chili Pepper by Roseanne Thong

Color Dance by Ann Jonas

What Can Colors Do? by Liz Yohlin Baill

Magic Colors by Patrick George

Mixtures and Solutions by Carol Ballard

Smithsonian 10-Minute Science Experiments by Steve Spangler